

**INTERMEC IP CORP.
U.S. PATENTS**

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|------------------------------|---|-------------------|--------------------|-------------------|-------------------|
| 0411951-00004 | METHOD AND APPARATUS FOR MATRIX SYMBOLOGY IMAGER | 08/255,002 | 07-Jun-94 | 5,536,924 | 16-Jul-96 |
| 0411951-00006 | METHOD AND APPARATUS FOR CONTROLLING TRANSPORT OF THERMAL TRANSFER RIBBON | 08/294,082 | 22-Aug-94 | 5,593,238 | 14-Jan-97 |
| 0411951-00012 | SOURCE DATA COMPRESSION AND DECOMPRESSION IN CODE SYMBOL PRINTING AND DECODING | 08/533,113 | 25-Sep-95 | 5,764,774 | 09-Jun-98 |
| 0411951-00013 | RESOLUTION GAIN ON WIDTH MODULATED BAR CODES BY USE OF ANGLED SAMPLING IN TWO DIMENSIONS | 08/515,035 | 14-Aug-95 | 5,777,308 | 07-Jul-98 |
| 0411951-00014 | MEDIA ROLL BRAKING SYSTEM FOR A THERMAL LABEL PRINTER | 08/507,783 | 26-Jul-95 | 5,562,034 | 08-Oct-96 |
| 0411951-00015 | SPUR GEAR RATCHET MECHANISM FOR THERMAL TRANSFER PRINTER | 08/591,967 | 29-Jan-96 | 5,601,373 | 11-Feb-97 |
| 0411951-00016 | FIXED MOUNT IMAGER USING OPTICAL MODULE FOR READING ONE OR TWO-DIMENSIONAL SYMBOLOGY DATA | 08/546,778 | 23-Oct-95 | 5,659,431 | 19-Aug-97 |
| 0411951-00018 | BAR CODE READING SYSTEM FOR RECONSTRUCTING IRREGULARLY DAMAGED BAR CODES | 08/572,514 | 14-Dec-95 | 6,039,252 | 21-Mar-00 |
| 0411951-00019 | PROBLEM REDUCTION WITH LOW LEVEL INFORMATION INTEGRATION IN BAR CODE DECODING | 08/554,184 | 06-Nov-95 | 5,777,310 | 07-Jul-98 |
| 0411951-00020 | APPARATUS FOR PREVENTION FORMATION OF CONDENSATION ON AN ELECTROOPTICAL SCANNER WINDOW | 08/579,292 | 27-Dec-95 | 5,729,003 | 17-Mar-98 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|--|------------|-------------|------------|------------|
| 0411951-00021 | RASTERING LASER SCANNER WITH BEAM LOCATION FEEDBACK | 08/674,581 | 02-Jul-96 | 5,844,222 | 01-Dec-98 |
| 0411951-00022 | PRIORITIZED SEARCHING METHODS FOR FINDING A CODED SYMBOL IN A DIGITIZED IMAGE | 08/617,026 | 18-Mar-96 | 5,764,798 | 09-Jun-98 |
| 0411951-00023 | HIGH RESOLUTION LASER IMAGER FOR LOW CONTRAST SYMBOLOGY | 08/624,173 | 29-Mar-96 | 6,330,974 | 18-Dec-01 |
| 0411951-00025 | METHOD AND APPARATUS FOR UTILIZING SPECULAR LIGHT TO IMAGE LOW CONTRAST SYMBOLS | 08/680,239 | 11-Jul-96 | 5,811,777 | 22-Sep-98 |
| 0411951-00026 | APPARATUS FOR PROVIDING BACK TENSION ON A PRINT MEDIA WEB | 08/727,116 | 08-Oct-96 | 5,859,656 | 12-Jan-99 |
| 0411951-00028 | MULTI-MEDIA THERMAL PRINTER | 09/250,827 | 17-Feb-99 | 6,151,055 | 21-Nov-00 |
| 0411951-00029 | METHOD AND APPARATUS FOR SELECTING PRINTER PARAMETERS FOR DIFFERENT TYPES OF PRINT MEDIA | 08/732,059 | 16-Oct-96 | 5,711,621 | 27-Jan-98 |
| 0411951-00032 | GENERIC HANDHELD SYMBOLOGY SCANNER WITH A MODULAR OPTICAL SENSOR | 08/872,949 | 11-Jun-97 | 6,003,775 | 21-Dec-99 |
| 0411951-00033 | SELF-CALIBRATING LABEL GAP SENSOR CIRCUIT WITH A CURRENT REGULATOR | 08/700,158 | 20-Aug-96 | 5,693,931 | 02-Dec-97 |
| 0411951-00034 | METHOD AND APPARATUS FOR COMPENSATING FOR PRINTER TOP-OF-FORM AND IMAGE STRETCH ERRORS | 08/759,576 | 05-Dec-96 | 5,915,865 | 29-Jun-99 |
| 0411951-00041 | DATA COMMUNICATION SYSTEM FOR PRINTER AND HANDHELD COMPUTER | 08/986,003 | 05-Dec-97 | 6,236,486 | 22-May-01 |
| 0411951-00042 | THERMAL PRINthead WITH INTEGRATED PRINthead POSITION SENSOR | 08/771,588 | 20-Dec-96 | 5,746,521 | 05-May-98 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|---|------------|-------------|------------|------------|
| 0411951-00044 | METHOD APPARATUS TO DETERMINE POSITION AND SENSE MOTION OF LINERLESS MEDIA | 08/435,024 | 04-May-95 | 5,803,635 | 08-Sep-98 |
| 0411951-00046 | METHOD AND APPARATUS FOR ADJUSTING LATERAL IMAGE REGISTRATION IN A MOVING WEB PRINTER | 08/522,033 | 31-Aug-95 | 5,733,054 | 31-Mar-98 |
| 0411951-00047 | METHODS AND APPARATUS FOR COMPENSATING STEP DISTANCE IN A STEPPING MOTOR DRIVEN LABEL PRINTER | 08/522,738 | 31-Aug-95 | 5,803,624 | 08-Sep-98 |
| 0411951-00066 | METHOD AND APPARATUS FOR IDENTIFYING BAR CODE SYMBOLS USING READING GATES | 08/838,005 | 14-Apr-97 | 5,923,022 | 13-Jul-99 |
| 0411951-00069 | MULTI-MODE RADIO FREQUENCY NETWORK SYSTEM | 08/962,908 | 03-Nov-97 | 6,295,461 | 25-Sep-01 |
| 0411951-00073 | LABEL PRINTER HAVING INTEGRATED OPTICAL SCANNER MODULE | 09/013,116 | 26-Jan-98 | 5,988,898 | 23-Nov-99 |
| 0411951-00077 | ADJUSTABLE LIGHT SHUTTER FOR HAND HELD ELECTRO-OPTICAL SCANNERS | 08/902,663 | 30-Jul-97 | 5,842,070 | 24-Nov-98 |
| 0411951-00078 | SCANNER WITH DIRECT PIXEL ACCESSING FROM MULTIPLE PIXEL MEMORY ARRAY | 08/581,829 | 02-Jan-96 | 5,798,509 | 25-Aug-98 |
| 0411951-00080 | PRINTER FEEDBACK CONTROL AND EVENT LIBRARY TO COMPENSATE FOR AND PREDICT VARIABLE PAYOUT FORCES | 08/999,384 | 18-Dec-97 | 6,015,241 | 18-Jan-00 |
| 0411951-00082 | NOISE CANCELLATION SYSTEM FOR A THERMAL PRINTER | 09/162,499 | 29-Sep-98 | 6,232,994 | 15-May-01 |
| 0411951-00084 | METHOD AND APPARATUS TO DETERMINE POSITION AND SENSE OF MOTION OF LINERLESS MEDIA | 09/003,545 | 06-Jan-98 | 5,915,864 | 29-Jun-99 |
| 0411951-00085 | METHOD AND APPARATUS FOR ADJUSTING LATERAL IMAGE REGISTRATION IN A MOVING WEB PRINTER | 09/000,901 | 30-Dec-97 | 6,099,176 | 08-Aug-00 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|--|------------|-------------|------------|------------|
| 0411951-00087 | METHOD AND APPARATUS FOR BAR CODE ASSOCIATION FOR WIRELESS NETWORK | 09/152,996 | 14-Sep-98 | 6,149,063 | 21-Nov-00 |
| 0411951-00089 | METHOD AND APPARATUS FOR UTILIZING SPECULAR LIGHT TO IMAGE LOW CONTRAST SYMBOLS | 09/154,758 | 22-Jan-01 | 6,367,699 | 09-Apr-02 |
| 0411951-00095 | FINGER POINT BAR CODE INPUT DEVICE | 09/239,265 | 29-Jan-99 | 6,234,393 | 22-May-01 |
| 0411951-00096 | HAND HELD USER COMPUTER INTERFACE | 09/307,369 | 07-May-99 | 6,243,258 | 05-Jun-01 |
| 0411951-00100 | RADIO FREQUENCY IDENTIFICATION INTERROGATOR SIGNAL PROCESSING SYSTEM FOR READING MOVING TRANSPONDERS | 09/153,617 | 15-Sep-98 | 6,122,329 | 19-Sep-00 |
| 0411951-00101 | LIQUID CRYSTAL DISPLAY AND BACKLIGHT HEATER | 09/203,964 | 02-Dec-98 | 6,163,359 | 19-Dec-00 |
| 0411951-00106 | DATA RECOVERY SYSTEM FOR RADIO FREQUENCY IDENTIFICATION INTERROGATOR | 09/294,469 | 20-Apr-99 | 6,501,807 | 31-Dec-02 |
| 0411951-00107 | METHOD FOR DETERMINING WHEN A COMMUNICATION DEVICE SHOULD RATE SHIFT OR ROAM IN A WIRELESS ENVIRONMENT | 09/291,581 | 12-Apr-99 | 6,556,553 | 29-Apr-03 |
| 0411951-00108 | ZERO LOSS BIAS "T" | 09/314,645 | 19-May-99 | 6,229,408 | 08-May-01 |
| 0411951-00109 | MICROELECTROMECHANICAL SYSTEMS SCANNING MIRROR FOR A LASER SCANNER | 09/298,098 | 22-Apr-99 | 6,155,490 | 05-Dec-00 |
| 0411951-00113 | GAPLESS LABEL MEDIA AND PRINTING APPARATUS FOR HANDLING SAME | 09/174,639 | 19-Oct-98 | 6,019,531 | 01-Feb-00 |
| 0411951-00114 | PERFORMANCE OPTIMIZED SMART LABEL PRINTER | 09/305,393 | 05-May-99 | 6,246,326 | 12-Jun-01 |
| 0411951-00115 | RFID TAG HAVING TIMING AND ENVIRONMENT MODULES | 09/412,091 | 04-Oct-99 | 6,294,997 | 25-Sep-01 |
| 0411951-00117 | LOW-COST RADIO REPLACEMENT UTILIZING RFID TECHNOLOGY | 09/394,241 | 13-Sep-99 | 6,608,551 | 19-Aug-03 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|--|------------|-------------|------------|------------|
| 0411951-00118 | LINERLESS LABEL TRACKING SYSTEM | 09/209,230 | 10-Dec-98 | 6,163,260 | 19-Dec-00 |
| 0411951-00134 | METHOD FOR APPLYING PRINTER REGISTRATION MARKS TO LINERLESS LABEL STOCK | 09/368,250 | 03-Aug-99 | 6,210,054 | 03-Apr-01 |
| 0411951-00138 | RFID TRANSPONDER WITH SQUINTE BEAM RADIATION PATTERN USING DIPOLE-OVER-GROUND PLANE ANTENNA | 09/286,121 | 02-Apr-99 | 6,166,638 | 26-Dec-00 |
| 0411951-00141 | RADIO FREQUENCY IDENTIFICATION TRANSPONDER HAVING A REFLECTOR | 09/259,745 | 27-Feb-99 | 6,441,740 | 27-Aug-02 |
| 0411951-00144 | METHOD AND APPARATUS FOR TESTING RFID TAGS | 09/167,026 | 06-Oct-98 | 6,104,291 | 15-Aug-00 |
| 0411951-00146 | COMBINATION RADIO FREQUENCY TRANSPONDER (RF TAG) AND MAGNETIC ELECTRONIC ARTICLE SURVEILLANCE (EAS) MATERIAL | 09/071,413 | 01-May-98 | 5,939,984 | 17-Aug-99 |
| 0411951-00150 | AUTOMATED RFID TRANSPONDER MANUFACTURING ON FLEXIBLE TAPE SUBSTRATES | 09/365,792 | 03-Aug-99 | 6,140,146 | 31-Oct-00 |
| 0411951-00151 | RFID TRANSPONDERS WITH PASTE ANTENNAS AND FLIP-CHIP ATTACHMENT | 09/443,621 | 19-Nov-99 | 6,259,408 | 10-Jul-01 |
| 0411951-00153 | METHOD AND APPARATUS FOR WIRELESS RADIO FREQUENCY TESTING OF RFID INTEGRATED CIRCUITS | 09/247,900 | 10-Feb-99 | 6,236,223 | 22-May-01 |
| 0411951-00159 | RFID INTEGRATED IN ELECTRONIC ASSETS | 09/185,838 | 04-Nov-98 | 6,249,227 | 19-Jun-01 |
| 0411951-00161 | MAGNETIC TAPE STORAGE MEDIA HAVING RFID TRANSPONDERS | 09/195,528 | 18-Nov-98 | 6,201,474 | 13-Mar-01 |
| 0411951-00162 | RADIO FREQUENCY IDENTIFICATION SYSTEM | 09/182,170 | 29-Oct-98 | 6,100,804 | 08-Aug-00 |
| 0411951-00163 | SYSTEM FOR CONTROLLING ASSETS | 09/190,564 | 12-Nov-98 | 6,121,878 | 19-Sep-00 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|---|------------|-------------|------------|------------|
| 0411951-00166 | METHOD AND SYSTEM FOR AUTOMATIC ADJUSTMENT AND DIAGNOSIS OF RADIO FREQUENCY IDENTIFICATION SYSTEMS USING PROGRAMMABLE CHECKTAGS | 09/470,159 | 22-Dec-99 | 6,486,769 | 26-Nov-02 |
| 0411951-00167 | STICKER TRANSPONDER FOR USE ON GLASS SURFACE | 09/321,506 | 27-May-99 | 6,121,880 | 19-Sep-00 |
| 0411951-00168 | ULTRA-THIN OUTLINE PACKAGE FOR INTEGRATED CIRCUIT | 09/417,635 | 14-Oct-99 | 6,518,885 | 11-Feb-03 |
| 0411951-00169 | AUTOMATIC PAYMENT SYSTEM FOR A PLURALITY OF REMOTE MERCHANTS | 09/452,547 | 01-Dec-99 | 6,529,880 | 04-Mar-03 |
| 0411951-00170 | ACTIVE RF TAG WITH WAKE-UP CIRCUIT TO PROLONG BATTERY LIFE | 09/407,919 | 29-Sep-99 | 6,593,845 | 15-Jul-03 |
| 0411951-00171 | RADIO FREQUENCY IDENTIFICATION TRANSPONDER HAVING A HIGH GAIN ANTENNA CONFIGURATION | 09/374,956 | 16-Aug-99 | 6,320,509 | 20-Nov-01 |
| 0411951-00172 | SYSTEM AND METHOD FOR COMMUNICATING WITH AN RFID TRANSPONDER WITH REDUCED NOISE AND INTERFERENCE | 09/390,461 | 07-Sep-99 | 6,639,509 | 28-Oct-03 |
| 0411951-00184 | EMBEDDED RFID TRANSPONDER IN VEHICLE WINDOW GLASS | 09/401,619 | 21-Sep-99 | 6,275,157 | 14-Aug-01 |
| 0411951-00185 | NETWORKING APPLICATIONS FOR AUTOMATED DATA COLLECTION | 09/625,647 | 26-Jul-00 | 6,853,294 | 08-Feb-05 |
| 0411951-00191 | RFID TRANSPONDER HAVING ACTIVE BACKSCATTER AMPLIFIER FOR RETRANSMITTING A RECEIVED SIGNAL | 09/470,327 | 22-Dec-99 | 6,838,989 | 04-Jan-05 |
| 0411951-00195 | RADIO FREQUENCY TAG WITH MINIATURIZED RESONANT ANTENNA | 09/423,063 | 29-Oct-99 | 6,285,342 | 04-Sep-01 |
| 0411951-00197 | RFID TAG EMPLOYING HOLLOWED MONOPOLE ANTENNA | 09/470,164 | 22-Dec-99 | 6,366,260 | 02-Apr-02 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|--|------------|-------------|------------|------------|
| 0411951-00201 | RADIO FREQUENCY IDENTIFICATION TRANSPONDER EMPLOYING PATCH ANTENNA | 09/191,642 | 13-Nov-98 | 6,215,402 | 10-Apr-01 |
| 0411951-00202 | RADIO FREQUENCY IDENTIFICATION TRANSPONDER HAVING A SPIRAL ANTENNA | 09/191,641 | 13-Nov-98 | 6,118,379 | 12-Sep-00 |
| 0411951-00205 | DISTRIBUTED IMPEDANCE MATCHING CIRCUIT FOR HIGH REFLECTION COEFFICIENT LOAD | 09/192,052 | 13-Nov-98 | 6,177,872 | 23-Jan-01 |
| 0411951-00206 | RADIO FREQUENCY TRANSPONDER WITH IMPROVED READ DISTANCE | 09/318,590 | 25-May-99 | 6,281,794 | 28-Aug-01 |
| 0411951-00207 | ANTENNA FOR RF TAG WITH A MAGNETOELASTIC RESONANT CORE | 09/309,330 | 11-May-99 | 6,130,612 | 10-Oct-00 |
| 0411951-00210 | APPARATUS AND METHOD FOR RADIO FREQUENCY TRANSPONDER WITH IMPROVED READ DISTANCE | 09/277,271 | 26-Mar-99 | 6,147,606 | 14-Nov-00 |
| 0411951-00215 | METHOD OF USING WRITE-OK FLAG FOR RADIO FREQUENCY (RF) TRANSPONDERS (RF TAGS) | 08/862,913 | 18-Nov-00 | 6,288,629 | 11-Sep-01 |
| 0411951-00217 | SYSTEM METHOD AND APPARATUS FOR IDENTIFYING AND COMMUNICATING WITH A PLURALITY OF TYPES OF RADIO FREQUENCY COMMUNICATION DEVICES | 08/811,989 | 05-Mar-97 | 6,172,596 | 09-Jan-01 |
| 0411951-00221 | LOW-VOLTAGE, LOW-POWER BANDGAP REFERENCE CIRCUIT WITH BOOTSTRAP CURRENT | 10/011,847 | 05-Nov-01 | 6,566,850 | 20-May-03 |
| 0411951-00224 | RFID INTERROGATOR HAVING CUSTOMIZED RADIO PARAMETERS WITH LOCAL MEMORY STORAGE | 10/013,109 | 07-Dec-01 | 7,039,359 | 02-May-06 |

| OMM Client-Matter No. | Title | Serial No. | Filing Date | Patent No. | Issue Date |
|-----------------------|--|------------|-------------|------------|------------|
| 0411951-00230 | ADJUSTABLE LENGTH ANTENNA SYSTEM FOR RF TRANSPONDERS | 09765,800 | 19-Jan-01 | 6,535,175 | 18-Mar-03 |
| 0411951-00234 | RFID TAG HAVING COMBINED BATTERY AND PASSIVE POWER SOURCE | 09911,598 | 23-Jul-01 | 6,944,424 | 13-Sep-05 |
| 0411951-00235 | PASSIVE RFID TAG THAT RETAINS STATE AFTER TEMPORARY LOSS OF POWER | 10056,398 | 23-Jan-02 | 6,812,841 | 02-Nov-04 |
| 0411951-00239 | FREQUENCY HOPPING SPREAD SPECTRUM SCHEME FOR RFID READER | 10814,411 | 30-Mar-04 | 7,103,087 | 05-Sep-06 |
| 0411951-00240 | SELF-COMPENSATING SPEAKER VOLUME CONTROL SYSTEM FOR DATA COLLECTION TERMINAL | 10993,641 | 19-Nov-04 | 7,210,633 | 01-May-07 |
| 0411951-00251 | DATA ENCODING IN RADIO FREQUENCY IDENTIFICATION TRANSPONDERS | 10876,443 | 24-Jun-04 | 7,190,257 | 13-Mar-07 |
| 0411951-00259 | TUNABLE RFID TAG FOR GLOBAL APPLICATIONS | 11081,239 | 15-Mar-05 | 7,323,977 | 29-Jan-08 |
| 0411951-00263 | COMBINATION RADIO FREQUENCY IDENTIFICATION TRANSPONDER (RFID TAG) AND MAGNETIC ELECTRONIC ARTICLE SURVEILLANCE (EAS) TAG | 10772,221 | 04-Feb-04 | 7,002,475 | 21-Feb-06 |
| 0411951-00264 | NETWORKING APPLICATIONS FOR AUTOMATED DATA COLLECTION | 11021,871 | 23-Dec-04 | 7,142,092 | 28-Nov-06 |
| 0411951-00268 | COMBINATION RADIO FREQUENCY IDENTIFICATION TRANSPONDER (RFID TAG) AND MAGNETIC ELECTRONIC ARTICLE SURVEILLANCE (EAS) TAG | 10985,665 | 10-Nov-04 | 7,084,770 | 01-Aug-06 |
| 0411951-00270 | REFERENCE CIRCUIT ENHANCEMENT FOR PASSIVE RFID TAGS | 11121,909 | 03-May-05 | 7,075,413 | 11-Jul-06 |